

**DNA POLYMERASE COMPOSITIONS FOR QUANTITATIVE PCR AND
METHODS THEREOF**

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ABSTRACT

The invention relates to the generation and characterization of Archaeal DNA polymerase mutants with deficient 3'-5' exonuclease activity and reduced base analog detection activity. The invention further provides for Archaeal DNA polymerase mutants with deficient 3'-5' exonuclease activity and reduced base analog detection activity
10 containing additional mutations that modulate other DNA polymerase activities including DNA polymerization or reverse transcriptase activity. The invention also discloses methods and applications of DNA polymerases with deficient 3'-5' exonuclease activity and reduced base analog detection activity.